

AMENDMENTS**In the claims:**

1. (Currently Amended) An image processing method for forming images on an image forming device based on a file stored in an image forming data transmission device using a portable terminal, said image forming data transmission device connected to a first internal network constructed inside a first firewall, said image forming device connected to a second internal network constructed inside a second firewall, and a file server connected to an external network constructed on the outside of said first firewall and said second firewall, comprising:

~~a step (1) wherein~~ said portable terminal ~~establishes~~ establishing a connection with said image forming data transmission device via said second internal network, said second firewall, said external network, said first firewall and said first internal network using a protocol, which ~~is allowed to make~~ allows bi-directional connections between the internal network and the external network at said first firewall and said second firewall;

~~a step (2) wherein~~ said portable terminal ~~transmits~~ transmitting an image forming request for said file stored in said image forming data transmission device to said image forming data transmission device;

~~a step (3) wherein~~ said image forming data transmission device ~~receives~~ receiving said image forming request transmitted by said portable terminal ~~in the step (2)~~ and ~~prepares~~ preparing an image forming data for said file according to said image forming request;

~~a step (4) wherein~~ said image forming data transmission device ~~establishes~~ establishing a connection with said file server via said first internal network, said first firewall, and said external network using a protocol, which ~~is allowed to make~~ allows connections only from the internal network to the external network at said first firewall;

~~a step (5) wherein~~ said image forming data transmission device ~~uploads~~ uploading said ~~prepared~~ image forming data ~~prepared in the step (3)~~ to said file server;

a step (6) wherein said image forming device establishes establishing a connection with said file server via said second internal network, said second firewall, and said external network using a protocol, which is allowed to make allows connections only from the internal network to the external network at said second firewall;

a step (7) wherein said image forming device downloads downloading said image forming data from said file server; and

a step (8) wherein said image forming device forms forming said image based on said downloaded image forming data downloaded in the step (7).

2. (Currently Amended) An image processing method according to claim 1 further comprising between the step (5) and the step (6) :

a step (9) wherein said image forming data transmission device transmits transmitting a storage location data indicating where said uploaded image forming data uploaded in the step (5) is stored on said file server to said portable terminal;

a step (10) wherein said portable terminal receives receiving said storage location data which said image forming data transmission device transmitted in the step (9);

a step (11) wherein said portable terminal displays displaying said received storage location data received in the step (10); and

a step (12) wherein said image forming device receives receiving an entry of said storage location data;

wherein said image forming device downloads said image forming data from the storage location on said file server based on said storage location data in the step (7).

3. (Currently Amended) An image processing method according to claim 1 further comprising between the step (5) and the step (6) :

a step (9) wherein said image forming data transmission device ~~transmits transmitting~~ a storage location data indicating where said uploaded image forming data ~~uploaded in the step (5)~~ is stored on said file server to said portable terminal;

a step (10) wherein said portable terminal ~~receives receiving~~ said storage location data which said image forming data transmission device transmitted in the step (9);

a step (13) wherein said portable terminal ~~transfers transferring~~ said received storage location data ~~received in the step (10)~~ to said image forming device via said second internal network or a local communication circuit; and

a step (14) wherein said image forming device ~~receives receiving~~ said storage location data transferred by said portable terminal at the step (13);

wherein said image forming device downloads said image forming data from the storage location on said file server based on said storage location data in the step (7).

4. (Currently Amended) An image processing method according to claim 1 further comprising ~~between the step (5) and the step (6)~~ :

a step (15) wherein said file server ~~transmits transmitting~~ a storage location data indicating where said image forming data uploaded by said image forming data transmission device in the step (5) is stored on said file server to said portable terminal;

a step (16) wherein said portable terminal ~~receives receiving~~ said storage location data which said file server transmitted in the step (15);

a step (17) wherein said portable terminal ~~displays displaying~~ said received storage location data ~~received in the step (16)~~; and

a step (18) wherein said image forming device ~~receives receiving~~ an entry of said storage location data;

wherein said image forming device downloads said image forming data from the storage location on said file server based on said storage location data ~~in the step (7)~~.

5. (Currently Amended) An image processing method according to claim 1 further comprising between the step (5) and the step (6) :

~~a step (15) wherein said file server transmits transmitting a storage location data indicating where said image forming data uploaded by said image forming data transmission device in the step (5) is stored on said file server to said portable terminal;~~

~~a step (16) wherein said portable terminal receives receiving said storage location data which said file server transmitted in the step (15);~~

~~a step (19) wherein said portable terminal transfers transferring said received storage location data received in the step (16) to said image forming device via said second internal network or a local communication circuit;~~

~~a step (20) wherein said image forming device receives receiving said storage location data transferred by said portable terminal in the step (19);~~

wherein said image forming device downloads said image forming data from the storage location on said file server based on said storage location data ~~in the step (7)~~.

6. (Original) An image processing method according to claim 1 wherein said image forming device is a printer and said image forming data is a printing job.

7. (Currently Amended) An image processing method for forming an image on an image forming device based on a file stored in an image forming data transmission device using a portable terminal, said image forming data transmission device connected to a first internal network constructed inside a first firewall, said image forming device connected to a second internal network

constructed inside a second firewall, and a file server connected to an external network constructed on the outside of said first firewall and said second firewall, comprising:

a step (1) wherein said portable terminal establishes establishing a connection with said image forming data transmission device via a public network, a public network authenticating server connected to said first internal network, and said first internal network;

a step (2) wherein said portable terminal transmits transmitting an image forming request for said file stored in said image forming data transmission device to said image forming data transmission device;

a step (3) wherein said image forming data transmission device receives receiving said image forming request transmitted by said portable terminal in the step (2) and prepares preparing an image forming data for said file according to said image forming request;

a step (4) wherein said image forming data transmission device establishes establishing a connection with said file server via said first internal network, said first firewall, and said external network using a protocol, which is allowed to make allows connections only from the internal network to the external network at said first firewall;

a step (5) wherein said image forming data transmission device uploads said prepared image forming data prepared in the step (3) to said file server;

a step (6) wherein said image forming device establishes establishing a connection with said file server via said second internal network, said second firewall, and said external network using a protocol, which is allowed to make allows connections only from the internal network to the external network at said second firewall;

a step (7) wherein said image forming device downloads downloading said image forming data from said file server; and

a step (8) wherein said image forming device forms forming said image based on said downloaded image forming data downloaded in the step (7).

8. (Currently Amended) An image processing method according to claim 7 further comprising between ~~the step (5) and the step (6)~~ :

~~a step (9) wherein~~ said image forming data transmission device ~~transmits transmitting~~ a storage location data indicating where said uploaded image forming data ~~uploaded in the step (5)~~ is stored on said file server to said portable terminal;

~~a step (10) wherein~~ said portable terminal ~~receives receiving~~ said storage location data which said image forming data transmission device transmitted ~~in the step (9)~~;

~~a step (11) wherein~~ said portable terminal ~~displays displaying~~ said received storage location data ~~received in the step (10)~~; and

~~a step (12) wherein~~ said image forming device ~~receives receiving~~ an entry of said storage location data;

wherein said image forming device downloads said image forming data from the storage location on said file server based on said storage location data ~~in the step (7)~~.

9. (Currently Amended) An image processing method according to claim 7 further comprising between ~~the step (5) and the step (6)~~ :

~~a step (9) wherein~~ said image forming data transmission device ~~transmits transmitting~~ a storage location data indicating where said uploaded image forming data ~~uploaded in the step (5)~~ is stored on said file server to said portable terminal;

~~a step (10) wherein~~ said portable terminal ~~receives receiving~~ said storage location data which said image forming data transmission device transmitted ~~in the step (9)~~;

~~a step (13) wherein~~ said portable terminal ~~transfers transferring~~ said received storage location data ~~received in the step (10)~~ to said image forming device via said second internal network or a local communication circuit; and

~~a step (14) wherein said image forming device receives receiving said storage location data transferred by said portable terminal at the step (13);~~

wherein said image forming device downloads said image forming data from the storage location on said file server based on said storage location data ~~in the step (7).~~

10. (Currently Amended) An image processing method according to claim 7 further comprising between ~~the step (5) and the step (6)~~:

~~a step (15) wherein said file server transmits transmitting a storage location data indicating where said image forming data uploaded by said image forming data transmission device in the step (5) is stored on said file server to said portable terminal;~~

~~a step (16) wherein said portable terminal receives receiving said storage location data which said file server transmitted in the step (15);~~

~~a step (17) wherein said portable terminal displays displaying said storage location data received in the step (16); and~~

~~a step (18) wherein said image forming device receives receiving an entry of said storage location data;~~

wherein said image forming device downloads said image forming data from the storage location on said file server based on said storage location data ~~in the step (7).~~

11. (Currently Amended) An image processing method according to claim 7 further comprising between ~~the step (5) and the step (6)~~:

~~a step (15) wherein said file server transmits transmitting a storage location data indicating where said image forming data uploaded by said image forming data transmission device in the step (5) is stored on said file server to said portable terminal;~~

a step (16) wherein said portable terminal receives receiving said storage location data which said file server transmitted ~~in the step (15)~~;

a step (19) wherein said portable terminal transfers transferring said received storage location data ~~received in the step (16)~~ to said image forming device via said second internal network or a local communication circuit;

a step (20) wherein said image forming device receives receiving said storage location data transferred by said portable terminal ~~in the step (19)~~;

wherein said image forming device downloads said image forming data from the storage location on said file server based on said storage location data ~~in the step (7)~~.

12. (Original) An image processing method according to claim 7 wherein said image forming device is a printer and said image forming data is a printing job.

13. (Currently Amended) An image processing system for forming an image on an image forming device based on a file stored in an image forming data transmission device, using a portable terminal, said image forming data transmission device connected to a first internal network constructed inside a first firewall, said image forming device connected to a second internal network constructed inside a second firewall, and a file server connected to an external network constructed on the outside of said first firewall and said second firewall, wherein:

said portable terminal comprises,

a first connection ~~establishing means for establishing~~ establisher to establish a connection with said image forming data transmission device via said second internal network, said second firewall, said external network, said first firewall and said first internal network using a protocol, which is ~~allowed to make~~ allows bi-directional connections between the internal network and the external network at said first firewall and said second firewall, and

an image forming request ~~transmission means for transmitting transmitter to transmit~~ an image forming request for said file stored in said image forming data transmission device to said image forming data transmission device;

said image forming data transmission device comprises,

an image forming request ~~receiving means for receiving receiver to receive~~ said image forming request from said portable terminal,

an image forming data ~~preparing means for preparing preparer to prepare~~ an image forming data for said file based on said image forming request received by said image forming request ~~receiving means receiver~~,

a second connection ~~establishing means for establishing establisher to establish~~ a connection with said file server via said first internal network, said first firewall, and said external network using a protocol, which is ~~allowed to make~~ allows connections only from the internal network to the external network at said first firewall, and

an image forming data ~~upload means for uploading uploader to upload~~ said image forming data prepared by said image forming data ~~preparing means preparer~~ to said file server; and

said image forming device comprises,

a third connection ~~establishing means for establishing establisher to establish~~ a connection with said file server via said second internal network, said second firewall, and said external network using a protocol, which is ~~allowed to make~~ allows connections only from the internal network to the external network at said second firewall,

an image forming data ~~download means for downloading downloader to download~~ said image forming data from said file server, and

an image ~~forming means for forming former to form~~ said image based on said image forming data downloaded by said image forming data ~~download means downloader~~.

14. (Original) An image processing system according to claim 13 wherein said image forming device is a printer and said image forming data is a printing job.

15. (Currently Amended) An image processing system for forming an image on an image forming device based on a file stored in an image forming data transmission device, using a portable terminal, said image forming data transmission device connected to a first internal network constructed inside a first firewall, said image forming device connected to a second internal network constructed inside a second firewall, and a file server connected to an external network constructed on the outside of said first firewall and said second firewall, wherein

said portable terminal comprises,

a first connection establishing means for establishing establisher to establish a connection with said image forming data transmission device via a public network, a public network authenticating server connected to said first internal network, and said first internal network, and an image forming request transmission means for transmitting transmitter to transmit an image forming request for said file stored in said image forming data transmission device to said image forming data transmission device;

said image forming data transmission device comprises,

an image forming request receiving means for receiving receiver to receive said image forming request from said portable terminal,

an image forming data preparing means for preparing preparer to prepare image forming data for said file based on said image forming request received by said image forming request receiving means,

a second connection establishing means for establishing establisher to establish a connection with said file server via said first internal network, said first firewall, and said external network

using a protocol, which ~~is allowed to make~~ allows connections only from the internal network to the external network at said first firewall, and

an image forming data ~~upload means for uploading~~ uploader to upload said image forming data prepared by said image forming data preparing means to said file server; and

said image forming device comprises,

a ~~third connection establishing means for establishing~~ establisher to establish a connection with said file server via said second internal network, said second firewall, and said external network using a protocol, which ~~is allowed to make~~ allows connections only from the internal network to the external network at said second firewall,

an image forming data ~~download means for downloading~~ downloader to download said image forming data from said file server, and

an image ~~forming means for forming~~ former to form said image based on said image forming data downloaded by said image forming data ~~download means~~ downloader.

16. (Original) An image processing system according to claim 15 wherein said image forming device is a printer and said image forming data is a printing job.

17. (Currently Amended) A portable terminal for forming an image on an image forming device based on a file stored in an image forming data transmission device, using said portable terminal, said image forming data transmission device connected to a first internal network constructed inside a first firewall, said image forming device connected to a second internal network constructed inside a second firewall, and a file server connected to an external network constructed on the outside of said first firewall and said second firewall, comprising:

a connection ~~establishing means for establishing~~ establisher to establish a connection with said image forming data transmission device via said second internal network, said second firewall,

said external network, said first firewall and said first internal network using a protocol, which is allowed to make allows bi-directional connections between the internal network and the external network at said first firewall and said second firewall; and

an image forming request ~~transmission means for transmitting transmitter to transmit~~ an image forming request for said file stored in said image forming data transmission device to said image forming data transmission device.

18. (Currently Amended) A portable terminal according to claim 17 further comprising:

a storage location data ~~receiving means for receiving receiver to receive~~ a storage location data indicating where an image forming data for said file uploaded to said file server by said image forming data transmission device is located on said file server; and

a storage location data display ~~means for displaying to display~~ said storage location data received by said storage location data ~~receiving means receiver~~.

19. (Currently Amended) A portable terminal according to claim 17 further comprising:

a storage location data ~~receiving means for receiving receiver to receive~~ a storage location data indicating where an image forming data for said file uploaded to said file server by said image forming data transmission device is located on said file server; and

a storage location data ~~transferring means for transferring transferrer to transfer~~ said storage location data received by said storage location data ~~receiving means receiver~~ via said second internal network or local communication circuit to said image forming device.

20. (Original) A portable terminal according to claim 17 wherein said image forming device is a printer and said image forming data is a printing job.

21. (Currently Amended) A portable terminal for forming an image on an image forming device based on a file stored in an image forming data transmission device, using said portable terminal, said image forming data transmission device connected to a first internal network constructed inside a first firewall, said image forming device connected to a second internal network constructed inside a second firewall, and a file server connected to an external network constructed on the outside of said first firewall and said second firewall, comprising:

a connection ~~establishing means for establishing~~ establisher to establish a connection with said image forming data transmission device via a public network, a public network authenticating server connected to said first internal network, and said first internal network; and

an image forming request ~~transmission means for transmitting~~ transmitter to transmit an image forming request for said file stored in said image forming data transmission device to said image forming data transmission device.

22. (Currently Amended) A portable terminal according to claim 21 further comprising:

a storage location data ~~receiving means for receiving~~ receiver to receive a storage location data indicating where an image forming data for said file uploaded to said file server by said image forming data transmission device is located on said file server; and

a storage location data display ~~means for displaying to display~~ display to display said storage location data received by said storage location data receiving means.

23. (Currently Amended) A portable terminal according to claim 17 further comprising:

a storage location data ~~receiving means for receiving~~ receiver to receive a storage location data indicating where an image forming data for said file uploaded to said file server by said image forming data transmission device is located on said file server; and

a storage location data ~~transferring means for transferring transfrerer to transfer~~ said storage location data received by said storage location data receiving means via said second internal network or local communication circuit to said image forming device.

24. (Original) A portable terminal according to claim 17 wherein said image forming device is a printer and said image forming data is a printing job.

25. (Currently Amended) An image forming data transmission device for forming an image on an image forming device based on a file stored in said image forming data transmission device, using a portable terminal, said image forming data transmission device connected to a first internal network constructed inside a first firewall, said image forming device connected to a second internal network constructed inside a second firewall, and a file server connected to an external network constructed on the outside of said first firewall and said second firewall, comprising:

a file storage ~~means for storing to store~~ said file;

an image forming request ~~receiving means for receiving receiver to receive~~ an image forming request for said file stored in said file storage means from said portable terminal;

an image forming data ~~preparing means from preparing preparer to prepare~~ an image forming data for said file based on said image forming request received by said image forming request ~~receiving means receiver~~;

a connection ~~establishing means for establishing establisher to establish~~ a connection with said file server via said first internal network, said first firewall, and said external network using a protocol, which is allowed to make connections only from the internal network to the external network at said first firewall; and

an image forming data ~~upload means for uploading uploader to upload~~ said image forming data prepared by said image forming data preparing means to said file server.

26. (Currently Amended) An image forming data transmission device according to claim 25 further comprising a storage location data ~~transmission means for transmitting transmitter to transmit~~ a storage location data indicating where said image forming data uploaded to said file server by said image forming data ~~uploading means uploader~~ is located on said file server to said portable terminal.

27. (Original) An image forming data transmitting device according to claim 25 wherein said image forming device is a printer and said image forming data is a printing job.

28. (Currently Amended) An image forming device for forming an image based on a file stored in an image forming data transmission device, using a portable terminal, said image forming data transmission device connected to a first internal network constructed inside a first firewall, said image forming device connected to a second internal network constructed inside a second firewall, and a file server connected to an external network constructed on the outside of said first firewall and said second firewall, comprising:

a connection ~~establishing means for establishing establisher to establish~~ a connection with said file server via said second internal network, said second firewall, and said external network using a protocol, which ~~is allowed to make~~ allows connections only from the internal network to the external network at said second firewall;

an image forming data ~~download means for downloading downloader to download~~ from said file server an image forming data for said file uploaded by said image forming data transmission device to said file server; and

an image forming ~~means for forming device to form~~ said image based on said image forming data downloaded by said image forming data ~~downloading means downloader~~.

29. (Currently Amended) An image forming device according to claim 28 further comprising a storage location data ~~receiving means for receiving receiver to receive~~ a storage location data indicating where said image forming data is located on said file server,

wherein said image forming data ~~downloading means downloader~~ downloads said image forming data from the storage location on said file server based on said storage location data received by said storage location data ~~receiving means receiver~~.

30. (Currently Amended) An image forming device according to claim 28 further comprising a storage location data ~~receiving means for receiving receiver to receive~~ a storage location data indicating where said image forming data is located on said file server from said portable terminal via said second internal network or local communication circuit;

wherein said image forming data ~~downloading means downloader~~ downloads said image forming data from the storage location on said file server based on said storage location data received by said storage location data ~~receiving means receiver~~.

31. (Original) An image forming device according to claim 28 wherein said image forming device is a printer and said image forming data is a printing job.

32. (Currently Amended) A recording medium that stores a program to control a portable terminal for forming an image on an image forming device based on a file stored in an image forming data transmission device, using said portable terminal, said image forming data transmission device connected to a first internal network constructed inside a first firewall, said image forming device connected to a second internal network constructed inside a second firewall,

and a file server connected to an external network constructed on the outside of said first firewall and said second firewall, characterized in causing said portable terminal to execute:

a-step (1) of establishing a connection with said image forming data transmission device via said second internal network, said second firewall, said external network, said first firewall and said first internal network using a protocol, which is allowed to make allows bi-directional connections between the internal network and the external network at said first firewall and said second firewall, and

a-step (2) of transmitting an image forming request for said file stored in said image forming data transmission device to said image forming data transmission device.

33. (Canceled)

34. (Currently Amended) A recording medium that stores a program to control a portable terminal for forming an image on an image forming device based on a file stored in an image forming data transmission device, using said portable terminal, said image forming data transmission device connected to a first internal network constructed inside a first firewall, said image forming device connected to a second internal network constructed inside a second firewall, and a file server connected to an external network constructed on the outside of said first firewall and said second firewall, characterized in causing said portable terminal to execute:

a-step (1) of establishing a connection with said image forming data transmission device via a public network, a public network authenticating server connected to said first internal network, and said first internal network, and

a-step (2) of transmitting an image forming request for said file stored in said image forming data transmission device to said image forming data transmission device.

35. (Canceled)

36. (Currently Amended) A recording medium that stores a program to control an image forming data transmission device for forming an image on an image forming device based on a file stored in said image forming data transmission device, using a portable terminal, said image forming data transmission device connected to a first internal network constructed inside a first firewall, said image forming device connected to a second internal network constructed inside a second firewall, and a file server connected to an external network constructed on the outside of said first firewall and said second firewall, characterized in causing said image forming data transmission device to execute:

~~a step (1) of receiving an image forming request for said file from said portable terminal;~~
~~a step (2) of preparing an image forming data for said file based on said image forming request received in the step (1);~~
~~a step (3) of establishing a connection with said file server via said first internal network, said first firewall, and said external network using a protocol, which is allowed to make allows connections only from the internal network to the external network at said first firewall; and~~
~~a step (4) of uploading said image forming data prepared in the step (2) to said file server.~~

37. (Canceled)

38. (Currently Amended) A recording medium that stores a program to control an image forming device for forming an image based on a file stored in an image forming data transmission device, using a portable terminal, said image forming data transmission device connected to a first internal network constructed inside a first firewall, said image forming device connected to a second internal network constructed inside a second firewall, and a file server connected to an external

network constructed on the outside of said first firewall and said second firewall, characterized in causing said image forming device to execute:

~~a step (1) of establishing a connection with said file server via said second internal network, said second firewall and said external network using a protocol, which is allowed to make allows~~ connections only from the internal network to the external network at said second firewall;

~~a step (2) of downloading from said file server an image forming data for said file uploaded by said image forming data transmission device to said file server; and~~

~~a step (3) of printing based on said image forming data downloaded in the step (2).~~

39. (Canceled)